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08/559,965 11/17/95 SPEAR

D EH-9376

EXAMINER

SIGANTZUS, M

34M2/0701

ART UNIT

PAPER NUMBER

6

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PATENT DEPARTMENT-MS 132-13  
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3401

DATE MAILED: 07/01/96

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

This application has been examined  Responsive to communication filed on \_\_\_\_\_  This action is made final.

A shortened statutory period for response to this action is set to expire 2 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1.  Notice of References Cited by Examiner, PTO-892.
2.  Notice of Draftsman's Patent Drawing Review, PTO-948.
3.  Notice of Art Cited by Applicant, PTO-1449.
4.  Notice of Informal Patent Application, PTO-152.
5.  Information on How to Effect Drawing Changes, PTO-1474.
6.  \_\_\_\_\_

Part II SUMMARY OF ACTION

1.  Claims 1 - 3 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2.  Claims \_\_\_\_\_ have been cancelled.

3.  Claims \_\_\_\_\_ are allowed.

4.  Claims 1 - 3 are rejected.

5.  Claims \_\_\_\_\_ are objected to.

6.  Claims \_\_\_\_\_ are subject to restriction or election requirement.

7.  This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8.  Formal drawings are required in response to this Office action.

9.  The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are  acceptable;  not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10.  The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been  approved by the examiner;  disapproved by the examiner (see explanation).

11.  The proposed drawing correction, filed \_\_\_\_\_, has been  approved;  disapproved (see explanation).

12.  Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has  been received  not been received  been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13.  Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14.  Other

EXAMINER'S ACTION

Art Unit: 3401

### **Part III DETAILED ACTION**

#### *Drawings*

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
  
2. The drawings are objected to because they do not include certain reference signs mentioned in the description. 37 CFR § 1.84(f) states, "Reference signs not mentioned in the description shall not appear in the drawing and vice versa." The following reference signs are not included in the drawings: *σ2* . Correction is required.

#### *Claim Rejections - 35 USC § 112*

3. Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 1 and 2, The phrase "under **some** operational condition" is indefinite since it is not understood under what condition is the end shock formed. Claim 3 is indefinite since the phrase " the inner transition radius" lacks proper antecedent basis (with regards to claim 1 only).

Art Unit: 3401

*Allowable Subject Matter*

4. Claims 1 and 2 would be allowable if rewritten or amended to overcome the rejection under 35 U.S.C. 112.
5. Claim 3 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

*Conclusion*

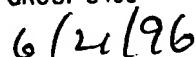
6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hausmann 2934259, Roy 2935246, Erwin 3692425, Kurzrock et al 4408957 and Russian 1528965 show various blades subject to shock phenomena.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Sgantzios whose telephone number is (703) 308-2624.



EDWARD K. LOOK  
SUPERVISORY PATENT EXAMINER  
GROUP 3400



M.S.

June 20, 1996